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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,064

11/17/2003

Kia Silverbrook

ZG150US

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12/15/2004

SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

GORDON, RAQUEL YVETTE

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,064

Applicant(s)

SILVERBROOK, KIA

Examiner

Raquel Y. Gordon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 7, 8 and 10-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/129,503.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/17/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6799836.

The following claims are at issue as being taught US Patent No. 6799836:

1. A printhead supporting shell device for a pagewidth printhead assembly, the shell comprising: **a longitudinal laminated structure (claims 7/2/1) defining an interior space, formed from continuous layers of at least two materials; the layers being odd in number and disposed symmetrically about a central layer (claims 7/2/1).**

2. A device according to claim 1, wherein: two layers which are symmetrically disposed about the central layer are made from the same material and have the

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same thickness.

3. A device according to claim 1, wherein: the shell further comprises a longitudinal gap adapted to receive a component of a printhead.
4. A device according to claim 1, wherein: the laminated shell is formed from at least three metals laminated together, the laminate having inner and outer layers which have the same coefficient of thermal expansion (claim 4);
5. A device according to claim 1, wherein: the shell has outer layers which are made from invar (claim 12/1);
6. A device according to claim 1, wherein: each material has a different coefficient of thermal expansion (claim 10/9/1);
9. A device according to claim 1, wherein: all of the layers are metal (claim 7/2/1).

However, US Patent No. 6799836 does not explicitly teach the difference of: “a longitudinal laminated structure (claims 7/2/1) defining an interior space, formed from continuous layers of at least two materials; the layers being odd in number and disposed symmetrically about a central layer.”

Nevertheless, although the conflicting claims are not identical, they are not patentably distinct from each other because: US Patent No. 6799836 teaches "a longitudinal core contained within and restrained by an outer laminated shell (claim 1) and "the outer shell is a laminated structure having an odd number of longitudinally extending continuous layers of at least two different metals wherein layers in a symmetrical arrangement" (claim 7/2/1).

The definition of "core" is the "innermost part."¹ The definition of "restrained" is that of having freedom or liberty restricted or taken away.² The definition of "contained" is "to keep within limits: Restrain."³ These definitions appear consistent with the Specification of US Patent No. 6799836 which defines the claimed elements.⁴

The definition of "disposed" as claimed in the instant claims is arranged in a particular order and is consistent with the ordinary meanings found within the instant Specification.⁵

One of ordinary skill in the art at the time the invention was made would have found US Patent No. 6799836 sufficiently teaches "a longitudinal laminated structure defining an interior space, formed from continuous layers of at least two materials; the layers being odd in number and disposed symmetrically about a central layer" since US Patent No. 6799836 teaches an innermost "core" which is

¹ Webster's II New Riverside University Dictionary. Eds. Anne H. Soukhanov et al. Boston, MA. Houghton Mifflin Company, 1988.

² Id.

³ Webster's II New Riverside University Dictionary. Eds. Anne H. Soukhanov et al. Boston, MA. Houghton Mifflin Company, 1988.

⁴ While the claim definitions have been considered in light of the Specification, only the claimed elements have been given weight with regard to the claim-to-claim inspection on which the Double Patenting Rejection herein is based.

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contained within an outer laminate shell with the same particular interior arrangement of the metal layers as claimed.

Further, it would have been obvious to one of ordinary skill in the art the "central layer" claimed is similar to the "shell" taught by US Patent No. 6799836 since both elements have an odd number of longitudinally extending continuous layers of at least two different metals wherein the layers are claimed to be in a similar symmetrical arrangement.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify US Patent No. 6799836 by the aforementioned teachings, for the purpose of restraining the core, as taught by US Patent No. 6799836.

Allowable Subject Matter

Claims 7, 8, and 10-14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Indication of Allowability

The following is a statement of reasons for the indication of allowable subject matter. For example, the following claims were not taught by the prior art since the claimed combinations either were not taught or there was an intervening claim preventing teaching the claims, as recited:

⁵ Id.

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7. A device according to claim 6, wherein: at least two materials have coefficients of expansion which are different than the coefficient of expansion of silicon, one material having a coefficient of expansion which is greater than the coefficient of expansion of silicon and one material having a coefficient of expansion which is less than the coefficient of expansion of silicon.

8. A device according to claim 1, wherein: two layers which are symmetrically disposed about the central layer have different thicknesses, the lateral cross section of the shell, in compensation, being configured to prevent bowing;

10. A device according to claim 1, further comprising: an extruded plastic core in which is formed one or more ink reservoirs.

11. A device according to claim 10, wherein: the reservoirs lead to a printhead which protrudes from the shell.

12. A device according to claim 11, wherein: the printhead is a modular printhead comprising a plurality of modules disposed along the length of the core.

13. A device according to claim 12, wherein: each module is fabricated from silicon.

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14. A device according to claim 13, wherein: each module further comprises ink nozzles, chambers and actuators.

Contact Information

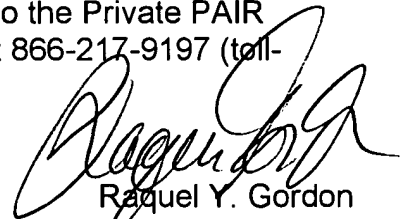
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Raquel Y. Gordon, whose telephone number is (571) 272-2145. The Examiner can normally be reached on M Tu Th and F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. A fax number is available upon request.

Any inquiry of a general nature or relating to the status of this application or proceeding may be directed to the Examiner or Supervisor.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raquel Y. Gordon
Primary Examiner
Art Unit 2853
December 9, 2004

**RAQUEL GORDON
PRIMARY EXAMINER**